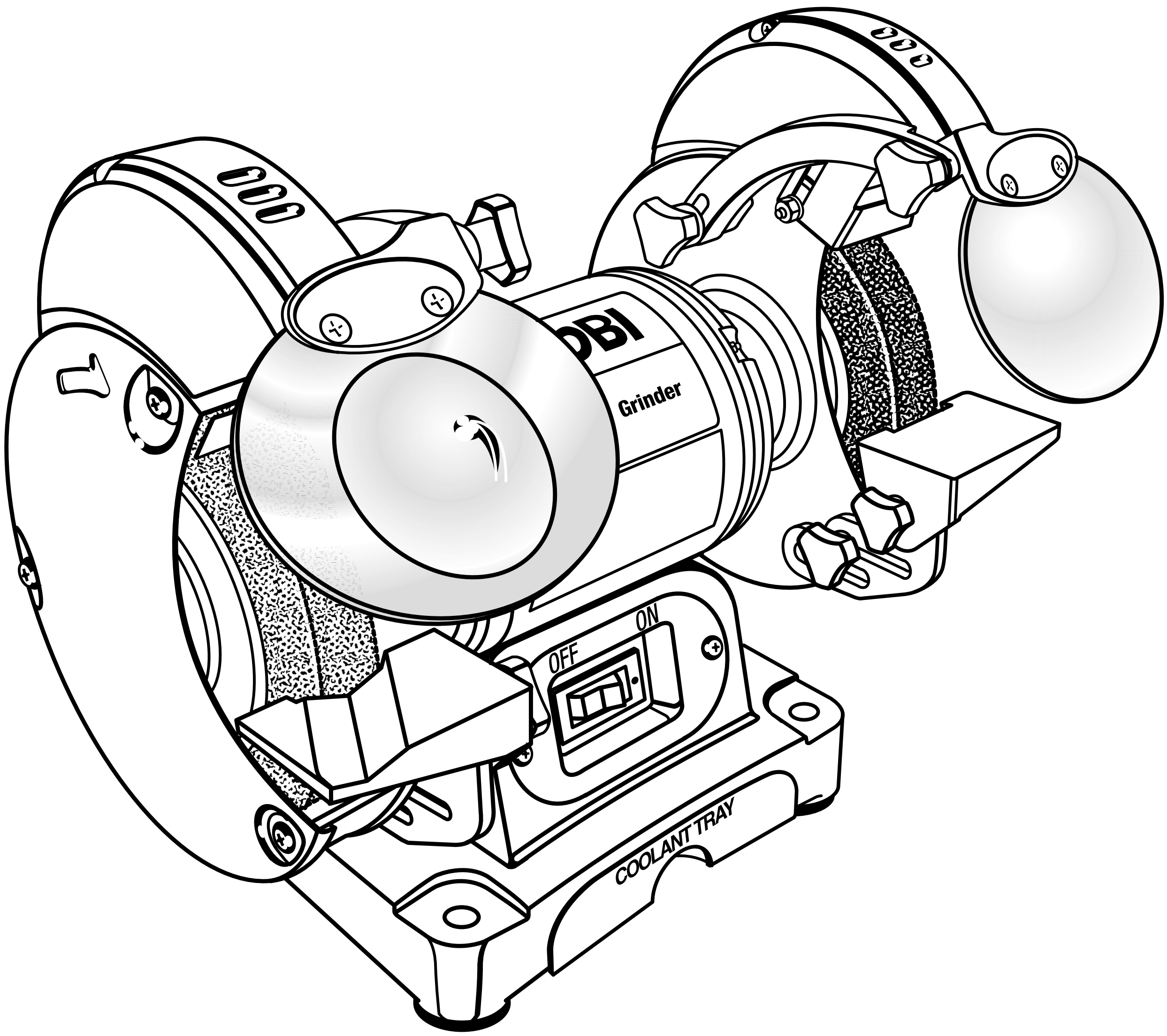
OPERATOR'S MANUAL

BENCH GRINDER

BGH616 and BGH827



Your bench grinder has been engineered and manufactured to Ryobi's high standard for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for buying a Ryobi product.

SAVE THIS MANUAL FOR FUTURE REFERENCE

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INTRODUCTION

This tool has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

GENERAL SAFETY RULES

⚠ WARNING:

Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

READ ALL INSTRUCTIONS

- **KNOW YOUR POWER TOOL.** Read the operator's manual carefully. Learn the grinder's applications and limitations as well as the specific potential hazards related to this tool.
- **GUARD AGAINST ELECTRICAL SHOCK BY PREVENTING BODY CONTACT WITH GROUNDED SURFACES.** For example, pipes, radiators, ranges, refrigerator enclosures.
- **KEEP GUARDS IN PLACE** and in good working order.
- **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents. **DO NOT** leave tools or pieces of wood on the bench grinder while it is in operation.
- **DO NOT USE IN DANGEROUS ENVIRONMENTS.** Do not use power tools in damp or wet locations or expose to rain. Keep the work area well lit.
- **KEEP CHILDREN AND VISITORS AWAY.** All visitors should wear safety glasses and be kept a safe distance from work area. Do not let visitors contact tool or extension cord while operating.
- **MAKE WORKSHOP CHILDPROOF** with padlocks and master switches, or by removing starter keys.
- **DON'T FORCE TOOL.** It will do the job better and safer at the feed rate for which it was designed.
- **USE RIGHT TOOL.** Don't force the tool or attachment to do a job it was not designed for. Don't use it for a purpose not intended.
- **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Use only a cord heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. A wire gauge size (A.W.G.) of at least **16** is recommended for an extension cord 25 feet or less in length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- **DRESS PROPERLY.** Do not wear loose clothing, gloves, neckties, or jewelry. They can get caught and draw you into moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Also wear protective hair covering to contain long hair.
- **ALWAYS WEAR SAFETY GLASSES WITH SIDE SHIELDS.** Everyday eyeglasses have only impact-resistant lenses, they are **NOT** safety glasses.
- **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- **DON'T OVERREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories.
- **DISCONNECT TOOLS.** When not in use, before servicing, or when changing attachments, grinding wheels, etc., all tools should be disconnected.
- **AVOID ACCIDENTAL STARTING.** Be sure switch is off when plugging in any tool.
- **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged must be properly repaired or replaced by an authorized service center to avoid risk of personal injury.
- **PROTECT YOUR LUNGS.** Wear a face or dust mask if the grinding operation is dusty.
- **PROTECT YOUR HEARING.** Wear hearing protection during extended periods of operation.
- **DO NOT ABUSE CORD.** Never yank cord to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- **USE OUTDOOR EXTENSION CORDS.** When tool is used outdoors, use only extension cords with approved ground connection that are intended for use outdoors and so marked.
- **WHEELS COASTS AFTER BEING TURNED OFF.**
- **NEVER USE IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor could ignite fumes.

GENERAL SAFETY RULES

- **INSPECT TOOL CORDS PERIODICALLY.** If damaged, have repaired by a qualified service technician at an authorized service facility. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Repair or replace a damaged or worn cord immediately. Stay constantly aware of cord location and keep it well away from the rotating grinding wheels.
- **INSPECT EXTENSION CORDS PERIODICALLY** and replace if damaged.
- **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by an authorized service center.
- **USE ONLY CORRECT WHEELS. Do not** use wheels with incorrect size holes. Never use wheel washers or wheel bolts that are defective or incorrect. The maximum wheel capacity of your grinder; BGH616 is 6 in and BGH827 is 8in.
- **NEVER TOUCH WHEEL** or other moving parts during use.
- **NEVER START A TOOL WHEN ANY ROTATING COMPONENT IS IN CONTACT WITH THE WORKPIECE.**
- **DO NOT OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR ANY MEDICATION.**
- **WHEN SERVICING** use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.
- **USE ONLY RECOMMENDED ACCESSORIES** listed in this manual or addendums. Use of accessories that are not listed may cause the risk of personal injury. Instructions for safe use of accessories are included with the accessory.
- **DOUBLE CHECK ALL SETUPS.** Make sure wheel is tight and not making contact with workpiece before connecting to power supply.

SPECIFIC SAFETY RULES

- **NEVER** reach to pick up a workpiece, a piece of scrap, or anything else that is in or near the grinding path of the wheel.
- **AVOID AWKWARD OPERATIONS AND HAND POSITIONS** where a sudden slip could cause your hand to move into the wheel. **ALWAYS** make sure you have good balance.
- **NEVER** stand or have any part of your body in line with the path of the wheel.
- **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by an authorized service center.
- **DO NOT TURN THE MOTOR SWITCH ON AND OFF RAPIDLY.** This could cause the wheel to loosen and could create a hazard. Should this ever occur, stand clear and allow the wheel to come to a complete stop. Disconnect your grinder from the power supply and securely retighten the wheel nut.
- **USE ONLY FLANGES** furnished with this bench grinder.
- **IF ANY PART OF THIS GRINDER IS MISSING** or should break, bend, or fail in any way, or should any electrical component fail to perform properly, shut off the power switch, remove the machine plug from the power source and have damaged, missing, or failed parts replaced before resuming operation.
- **MAKE SURE THE GRINDER IS SECURELY MOUNTED** as described in the operating instructions before connecting the tool to a power supply.
- **DO NOT OVERTIGHTEN THE WHEEL NUT.** Excessive tightening can cause the wheel to crack during operation.
- **ALWAYS USE THE GRINDER'S WHEEL GUARDS AND SAFETY SHIELDS.**
- **INSPECT GRINDING WHEEL** for visible defects. Check the wheel for fissures and cracks, and test for normal operation prior to use. Replace cracked wheel immediately.
- **ADJUST** distance between wheel and work rest to maintain 1/16 in. or less separation as the diameter of the wheel decreases with use. The value of separation used in the marking is to be the separation recommended by the manufacturer but shall not be more than 1/8 in.
- **ALWAYS EASE THE WORKPIECE AGAINST THE ABRASIVE WHEEL** when starting to grind. A harsh impact can break the wheel. Use light pressure when starting to grind; too much pressure on a cold wheel can cause the wheel to crack.
- **RISK OF INJURY DUE TO ACCIDENTAL STARTING. Do not** use in an area where children may be present.
- **NEVER START THE GRINDER** when the wheel is in contact with the workpiece.
- **SECURE WORK.** Always hold workpiece firmly against the work rest.
- **DO NOT USE THE BENCH GRINDER** if the flange nut or clamp nut is missing or if the spindle shaft is bent.
- **FREQUENTLY** clean grinding dust from beneath grinder.
- **STAY ALERT AND EXERCISE CONTROL.** Watch what you are doing and use common sense. Do **not** operate tool when you are tired. Do **not** rush.
- **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use to instruct other users. If you loan someone this tool, loan them these instructions also.

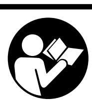
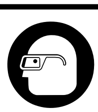
⚠ WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SYMBOLS

Some of the following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
∿	Alternating Current	Type of current
⎓	Direct Current	Type or a characteristic of current
n_o	No Load Speed	Rotational speed, at no load
⧈	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear safety goggles or safety glasses with side shields, or a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.

SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	DANGER:	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING:	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION:	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	CAUTION:	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

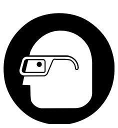
SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.

WARNING:

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. Save this operator's manual and review frequently for continuing safe operation and instructing others who may use this product.

WARNING:



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles, safety glasses with side shields, or a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

SAVE THESE INSTRUCTIONS

EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. When using a power tool at a considerable distance from the power source, use an extension cord heavy enough to carry the current that the tool will draw. An undersized extension cord will cause a drop in line voltage, resulting in a loss of power and causing the motor to overheat. Use the chart provided below to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

**Ampere rating (on tool data plate)	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0
Cord Length	**Wire Size (A.W.G.)**					
25'	16	16	16	16	14	14
50'	16	16	16	14	14	12
100'	16	16	14	12	10	—

**Used on 12 gauge - 20 amp circuit.
NOTE: AWG = American Wire Gauge

When working with the tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters "WA" on the cord's jacket.

Before using an extension cord, inspect it for loose or exposed wires and cut or worn insulation.

⚠ WARNING:

Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool. Failure to do so can result in serious personal injury.

⚠ WARNING:

Check extension cords before each use. If damaged replace immediately. Never use tool with a damaged cord since touching the damaged area could cause electrical shock resulting in serious injury.

ELECTRICAL CONNECTION

This tool is powered by a precision built electric motor. It should be connected to a **power supply that is 120 volts, 60 Hz, AC only (normal household current).** Do not operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If the grinder does not operate when plugged into an outlet, double check the power supply.

SPEED AND WIRING

The no-load speed of this tool is approximately 3,600 rpm. This speed is not constant and decreases under a load or with lower voltage. For voltage, the wiring in a shop is as important as the motor's horsepower rating. A line intended only for lights cannot properly carry a power tool motor. Wire that is heavy enough for a short distance will be too light for a greater distance. A line that can support one power tool may not be able to support two or three tools.

GROUNDING INSTRUCTIONS

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet like the one shown in figure 1. It also has a grounding pin like the one shown.

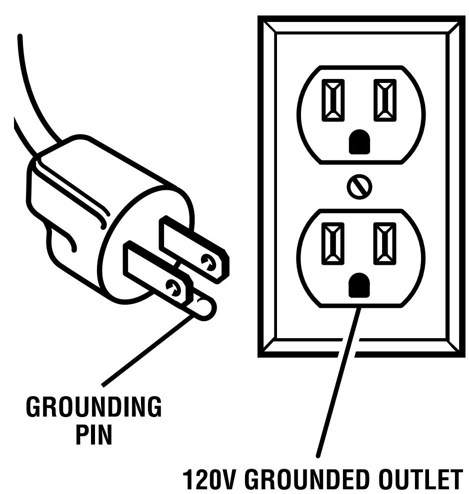


Fig. 1

FEATURES

PRODUCT SPECIFICATIONS-MODEL BGH616

Wheel Diameter .... 6 in.
Wheel Thickness .... 3/4 in.
Arbor Hole .... 1/2 in.
No Load Speed .... 3600/rpm.
Input ....120 V, 60 Hz, AC only, 2.1 Amps
Net Weight.. 24 lbs.

PRODUCT SPECIFICATIONS-MODEL BGH827

Wheel Diameter .... 8 in.
Wheel Thickness .... 1 in.
Arbor Hole .... 5/8 in.
No Load Speed .... 3600/rpm.
Input ....120 V, 60 Hz, AC only, 3.0 Amps
Net Weight.. 41.2 lbs.

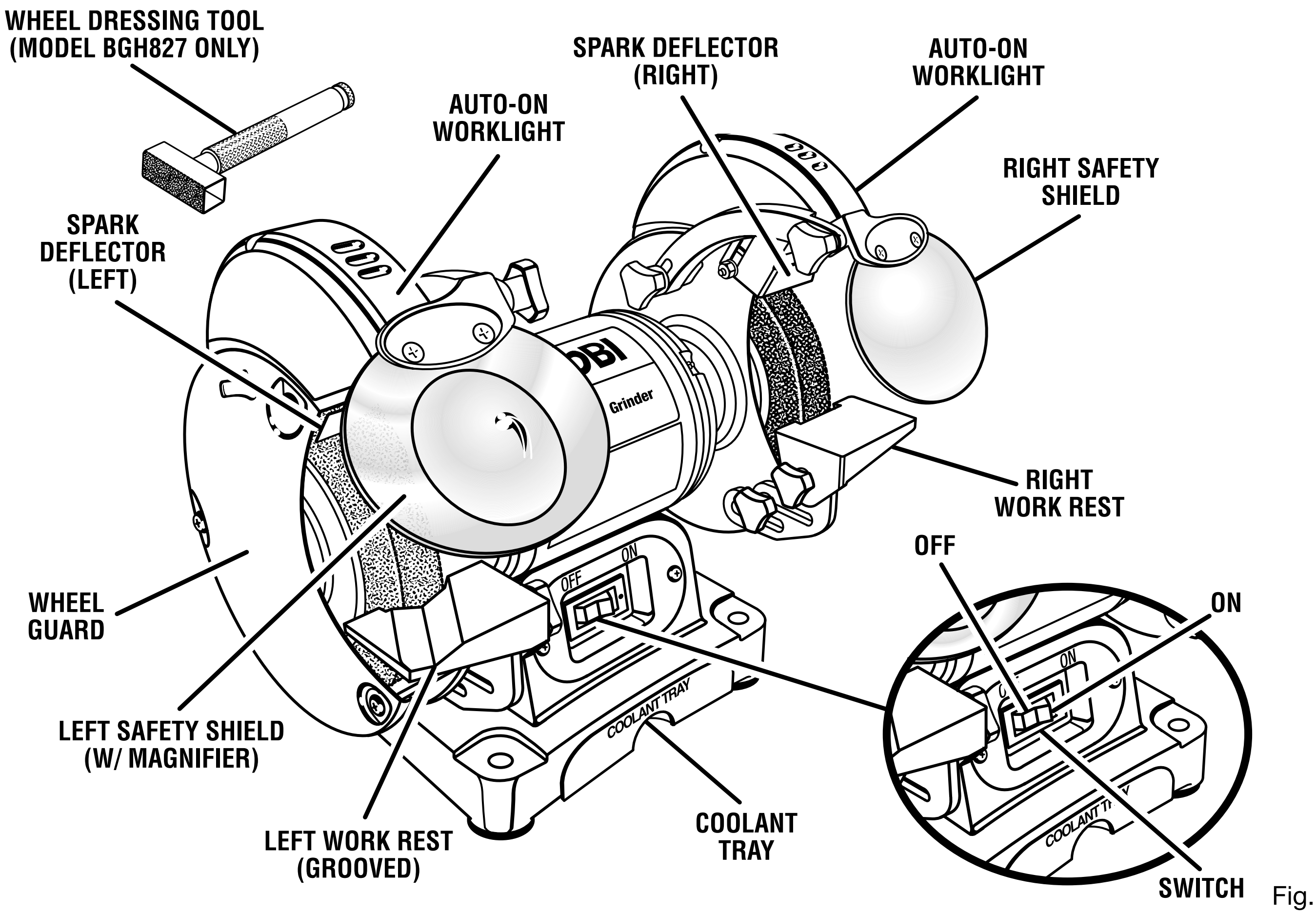


Fig. 2

KNOW YOUR BENCH GRINDER

See Figure 2.

Before attempting to use this product, familiarize yourself with all operating features and safety rules.

ON/OFF SWITCH

The bench grinder features a front access On/Off switch for convenience and safety.

GRINDING WHEELS

Equipped with course and fine grinding wheels to suit most applications.

SAFETY SHIELD AND SPARK DEFLECTOR

The safety shields and spark deflectors are provided to ensure your safety.

WORK REST

Provides a stable work surface when performing most grinding tasks. A grooved work rest is provided to allow for the grinding of drill bits

AUTO-ON WORKLIGHT

Your bench grinder comes equipped with a permanently mounted worklight that automatically lights when switch is turned on.

WHEEL DRESSING TOOL (MODEL BGH827 ONLY)

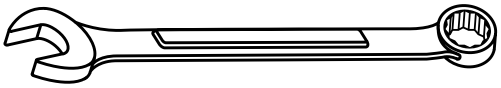
Dressing tool is used to clean the wheel from ground-in particles, and true the grinding wheel surface.

COOLANT TRAY

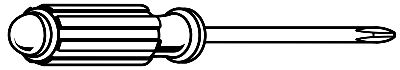
The coolant tray is used when grinding metal objects.

TOOLS NEEDED

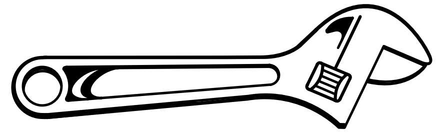
The following tools **(not included)** are needed for checking adjustments of your saw or for installing the blade:



COMBINATION WRENCH (3)
7 mm, 10 mm, and 12 mm



PHILLIPS SCREWDRIVER



ADJUSTABLE WRENCH

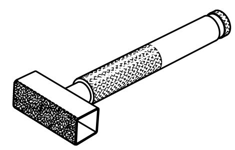
Fig. 3

LOOSE PARTS

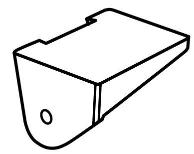
The following items are included with your Bench Grinder:

- Shield Bracket – one left, one right 2
- Safety Shield Assemblies - left (magnified), right........ 2
- Work Rest – left (grooved), right 2
- Work Rest Brackets... 2
- Fastening Knobs (2 large, 2 medium and 2 small) 6
- Washers (6 mm)... 4
- Washers (5 mm)... 2
- Lock Washers (6 mm).. 2
- Wheel Dresser Tool (Model BGH827 only) 1
- Operator's Manual

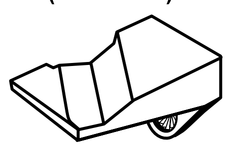
WHEEL DRESSING TOOL
(MODEL BGH827 ONLY)



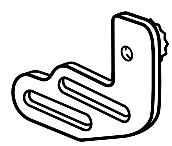
RIGHT
WORK REST



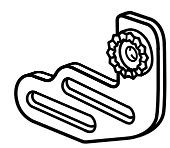
LEFT WORK REST
(GROOVED)



WORK REST
BRACKETLEFT



WORK REST
BRACKET RIGHT



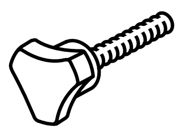
LOCK WASHER



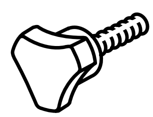
WASHER



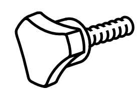
REAR SHIELD
BRACKET KNOB



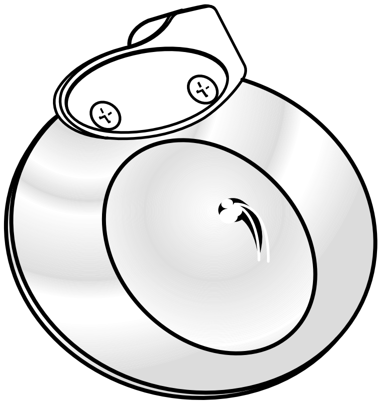
WORK
REST KNOB



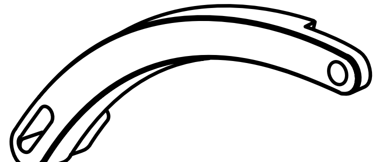
SAFETY
SHIELD KNOB



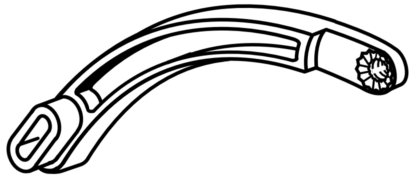
SAFETY SHIELD (LEFT)



SHIELD BRACKET (RIGHT)



SHIELD BRACKET(LEFT)



SAFETY SHIELD (RIGHT)

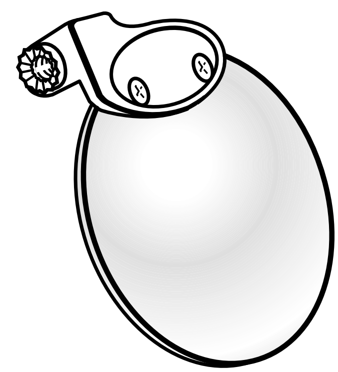


Fig. 4

⚠ **WARNING:** The use of attachments or accessories not listed might be hazardous and could cause serious personal injury.

UNPACKING

This product requires assembly.

- Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.

⚠ WARNING:

If any parts are missing do not operate this tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

⚠ WARNING:

Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

⚠ WARNING:

Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

⚠ WARNING:

Always disconnect the bench grinder from the power source before performing any assembly. Failure to do so could result in accidental starting resulting in possible serious personal injury.

MOUNTING SAFETY SHIELD ASSEMBLY

See Figure 5.

- Fasten the safety shield assemblies to the safety shield brackets using the fastening knob and small washer.

  NOTE: The slotted part of the safety shield bracket must face towards the grinding wheel guard.
- Attach the safety shield assembly and bracket to the wheel guard using a washer, lock washer and rear shield bracket knob.

⚠ WARNING:

Always spin the wheel by hand before turning on the grinder to make sure the spark deflector doesn't hit the grinding wheel.

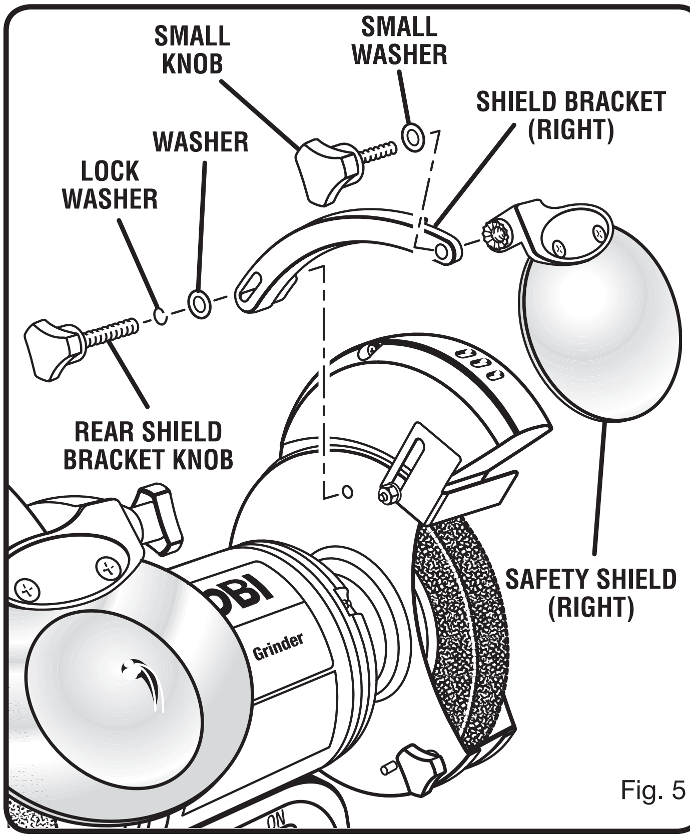


Fig. 5

MOUNTING WORK REST

See Figure 6.

- Remove the knob, star washer, and washer from the carriage bolt on the lower portion of wheel guard.
- Using the slotted screw, star washer, washer and fastening knob, attach the work rest bracket to the inside of the wheel guard as shown.

  NOTE: The grooved work rest mounts on the left side.

  NOTE: The work rest bracket's lower slot must be positioned over the pin on the guard.
- With the remaining fastening knob, install the work rest to the bracket.

NOTE: Adjust the distance between the wheel and the work rest to maintain 1/16 in. or less separation as the diameter of the wheel decreases with use.

⚠ WARNING:

Always make sure your bench grinder is securely mounted to a workbench. Failure to do so could result in an accident resulting in possible serious personal injury.

MOUNTING GRINDER TO WORKBENCH

See Figure 7.

If grinder is to be used in a permanent location, it should be fastened securely to a firm supporting surface, such as a workbench with bolts.

- Use 1/4 in. bolts, washers, and nuts (not included). The bolt length should be 1-1/2 in. plus the thickness of the workbench.
- Locate and mark the holes where the grinder is to be mounted.
- Drill four 3/8 in. diameter holes through workbench.
- Place sander on workbench, aligning holes in base with holes drilled in workbench.
- Insert four 1/4 in. diameter bolts and washers and attach nuts securely.

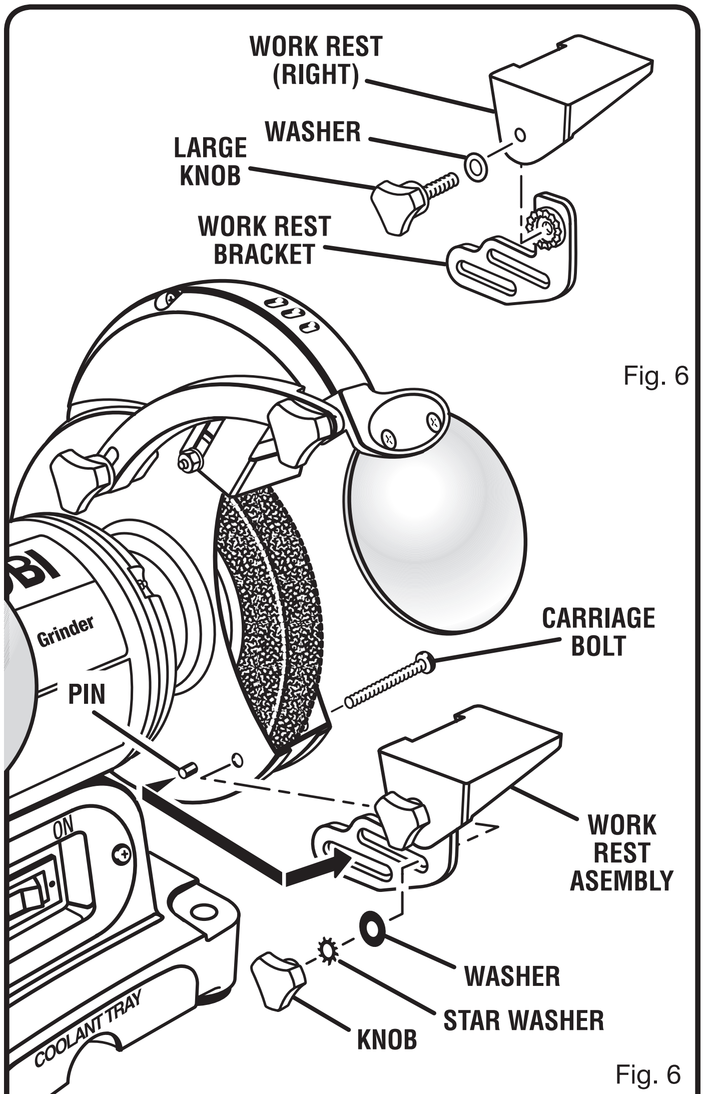


Fig. 6

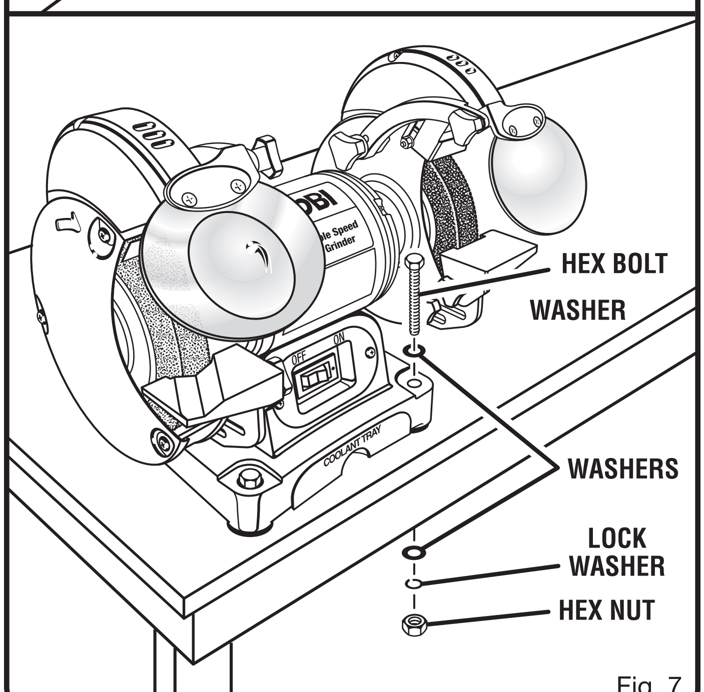


Fig. 7

⚠ WARNING:

Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

⚠ WARNING:

Always wear safety goggles or safety glasses with side shields when operating power tools. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

⚠ WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this tool. The use of attachments or accessories not recommended can result in serious personal injury.

APPLICATIONS

This product has been designed only for the purposes listed below:

- Sharpening drill bits
- Sharpening lawn mower blades
- Sharpening chisels and flat screwdrivers

BASIC OPERATION

To be efficient and work as designed, your tools should be kept sharp. Dull tools can and will cause accidents.

Bench Grinders are ideal for sharpening tools such as chisels, planer blades, scissors, etc., and for removing rust or corrosion.

⚠ WARNING:

Never sharpen or grind anything made of aluminum, brass, or copper.

Grinders remove material rapidly so pressure is the key to efficient grinding.

The proper way to sharpen a tool and avoid overheating is:

- Keep the object in constant motion, moving it at an even pace.
- Never force a tool against the grinding wheel.
- Keep the tool cool by using either the coolant tray or a pan of water.
- The grinding wheel should rotate “into” the object being sharpened.

NOTE: Excessive pressure may damage the tool, cause the motor to overheat, and prematurely wear down the grinding wheel.

⚠ WARNING:

Excessive pressure on a cold wheel may cause the wheel to crack.

USING COOLANT TRAY

See Figure 8.

The built-in coolant tray allows you to cool overheated workpieces. Simply pull out the tray and fill half way with appropriate coolant.

ON/OFF SWITCH

See Figure 8.

The Bench Grinder features a front access On/Off switch for convenience and safety.

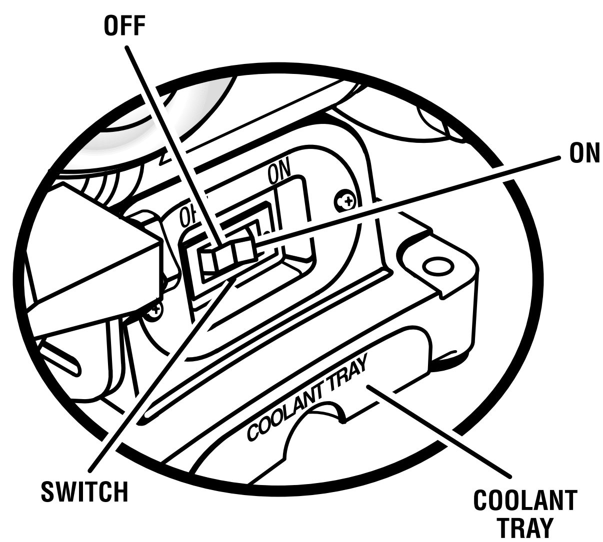


Fig. 8

SHARPENING TWIST DRILL BITS

See Figure 9.

Drill bits are best sharpened on a sharpening jig (available at most hardware stores). Begin on one side of the point at the existing angle, then twist the bit while maintaining contact with the grinding surface. Sharpen only the tip.

This technique requires considerable practice, so take your time and make a few “dry runs” first with the grinder off. Be sure to maintain the original cutting edge angle as this is important to the efficiency of your bits. One work rest has a V-groove angled to fit most drill bits.

SHARPENING LAWN MOWER BLADES

See Figure 10.

Lawn mower blades are usually sharpened on only one edge and dressed up slightly on the other. Perform this sharpening process on both cutting ends of the blade. After sharpening, be sure to balance the blade by removing additional material.

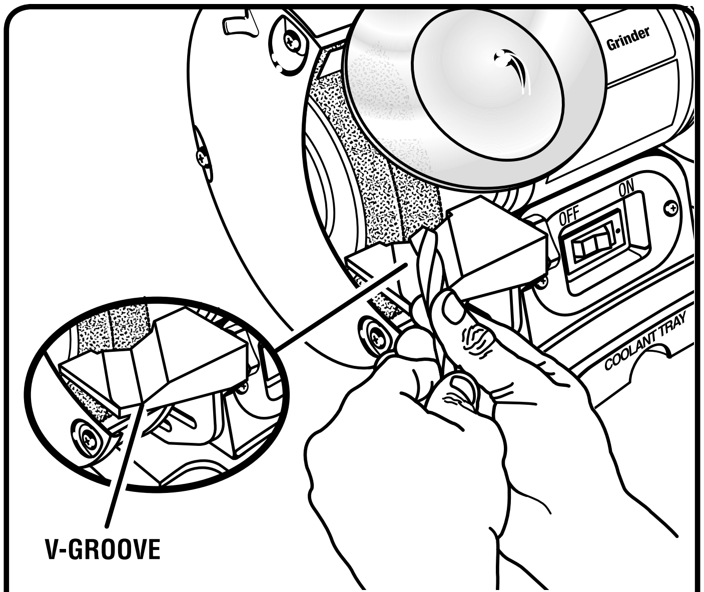
CAUTION:

An unbalanced lawn mower blade may cause excessive vibration which will damage the lawn mower.

SHARPENING CHISELS AND SCREWDRIVER BLADES

See Figure 11.

When sharpening chisels and screwdrivers, work rest should support the chisel at the correct angle against the wheel.



BIT SHARPENING Fig. 9

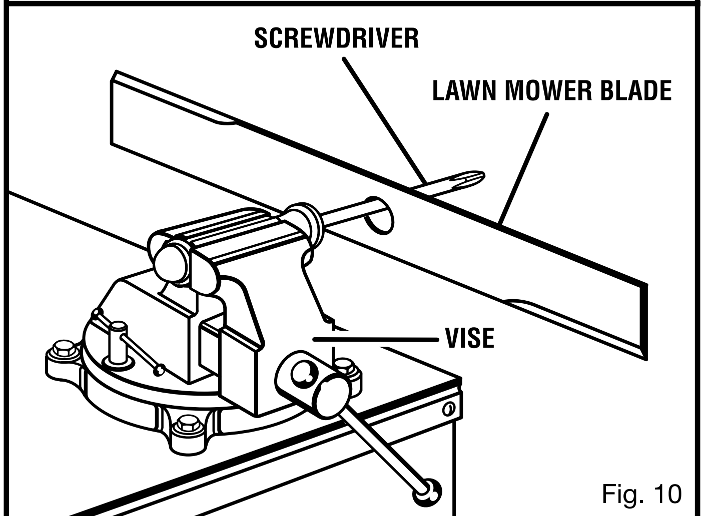
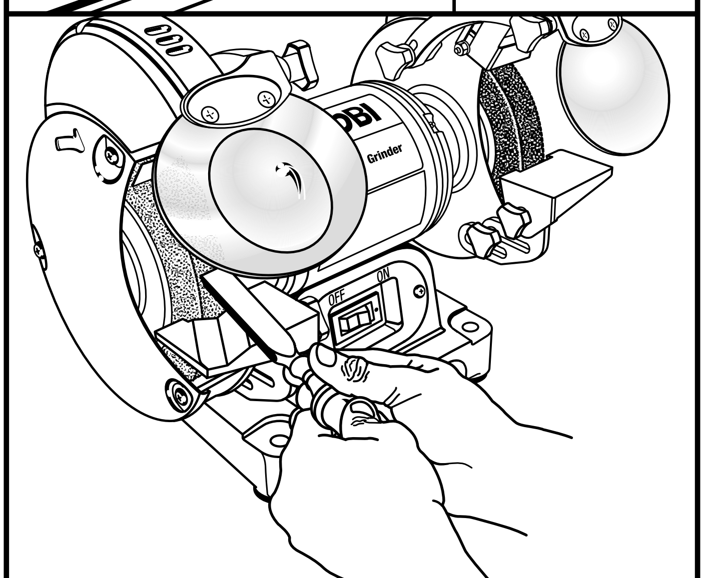


Fig. 10



CHISEL SHARPENING Fig. 11

MAINTENANCE

⚠ WARNING:

When servicing, use only identical Ryobi replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠ WARNING:

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

⚠ WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

⚠ WARNING:

Always disconnect the bench grinder from the power source before performing any assembly or adjustment. Failure to do so could result in accidental starting resulting in possible serious personal injury.

WHEEL REPLACEMENT

See Figure 12.

If you must replace a grinding wheel, be sure to obtain one with a safe rated speed at least as high as the “no load speed” RPM marked on the data plate of the grinder and which is marked to comply with ANSI B7.1.

To replace the grinding wheel.

- Unplug the grinder.
- Remove the wheel cover by loosening the screws.
- Loosen the wheel nut in a clockwise direction for the left side and a counterclockwise direction for the right side.
- Remove the outer flange and grinding wheel.
- To install a new grinding wheel, reverse the above procedure.

  NOTE: Be sure the grinding wheel and outer flange are properly seated on the spindle shaft.

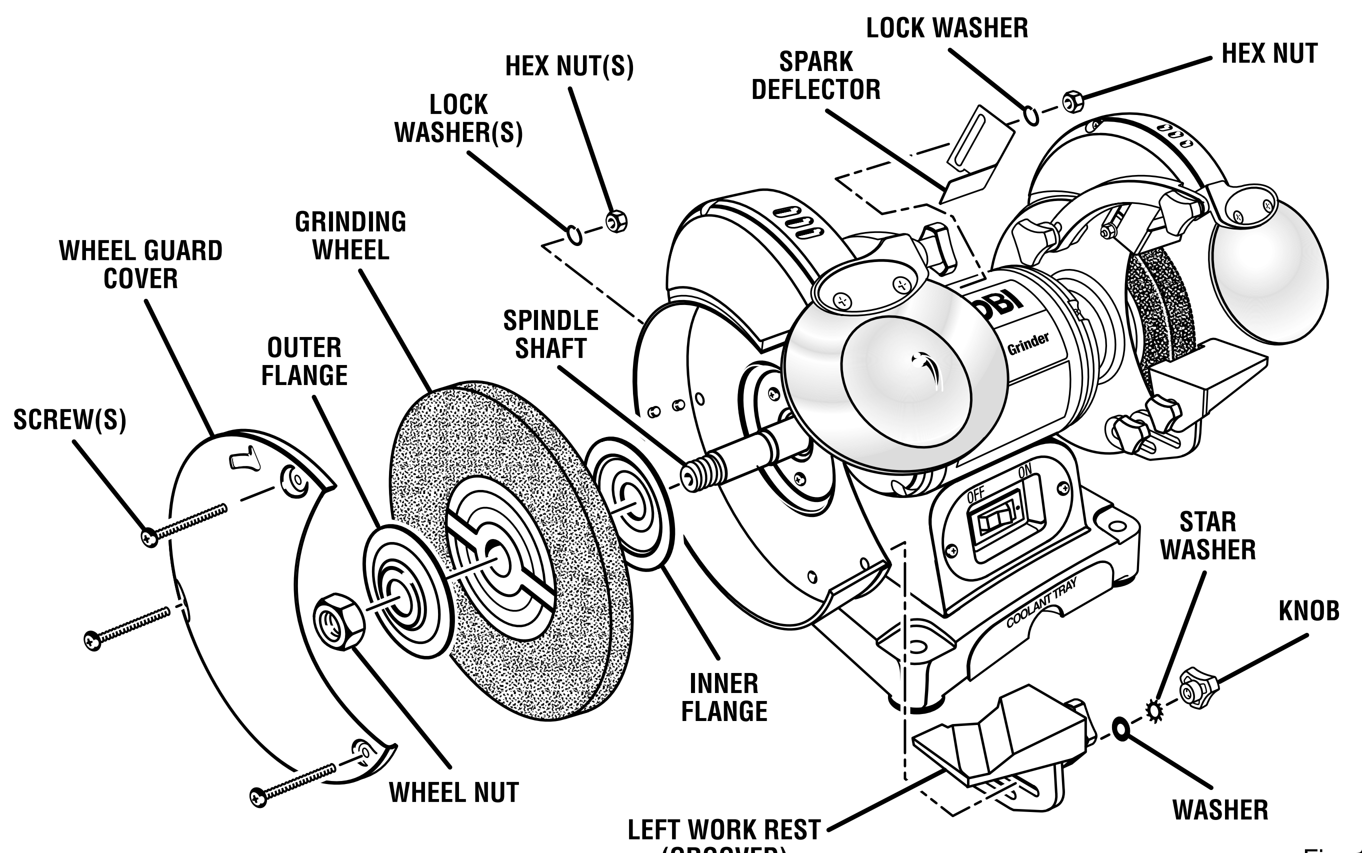


Fig. 12

Electric tools used on fiberglass material, wallboard, spackling compounds, or plaster are subject to accelerated wear and possible premature failure because the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc. Consequently, we do not recommended using this tool for extended work on these types of materials. However, if you do work with any of these materials, it is extremely important to clean the tool using compressed air.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. Therefore, no further lubrication is required.

WORKLIGHT BULB REPLACEMENT

See Figure 13.

Contact Customer Service at 1-800-525-2579 for information on replacement bulb.

NOTE: Follow these instructions to change a burnt out bulb.

- Unplug the grinder.
- Remove the two phillips head screws from the top of worklight housing.
- Remove worklight housing.
- While gently pushing in bulb, turn bulb to left to release.
- Place new bulb into bulb receptacle and gently push in while turning to the right until bulb is fully seated.
- Reinstall the worklight housing using the two phillips head screws.

NOTE: To avoid the risk of fire, always use a 12v bulb with a wattage no greater than 10w.

WHEEL DRESSING TOOL-MODEL BGH827

Dressing a wheel is done to renew sharpness or to true up the face of the wheel.

Set the work rest of the bench grinder at a slight angle and brace the wheel dresser against it. Do not make contact with the grinding wheel until after you have turned on the motor and the wheel is rotating at full speed. Press the dresser slightly against the rotating wheel until you get a bite, then move slowly from side to side across the wheel. A small bite and many passes is better than a big bite and one pass. Work cautiously, hold the dresser with force on the work rest. Do not use excessive pressure against the grinding wheel. Proceed slowly until you master the technique.

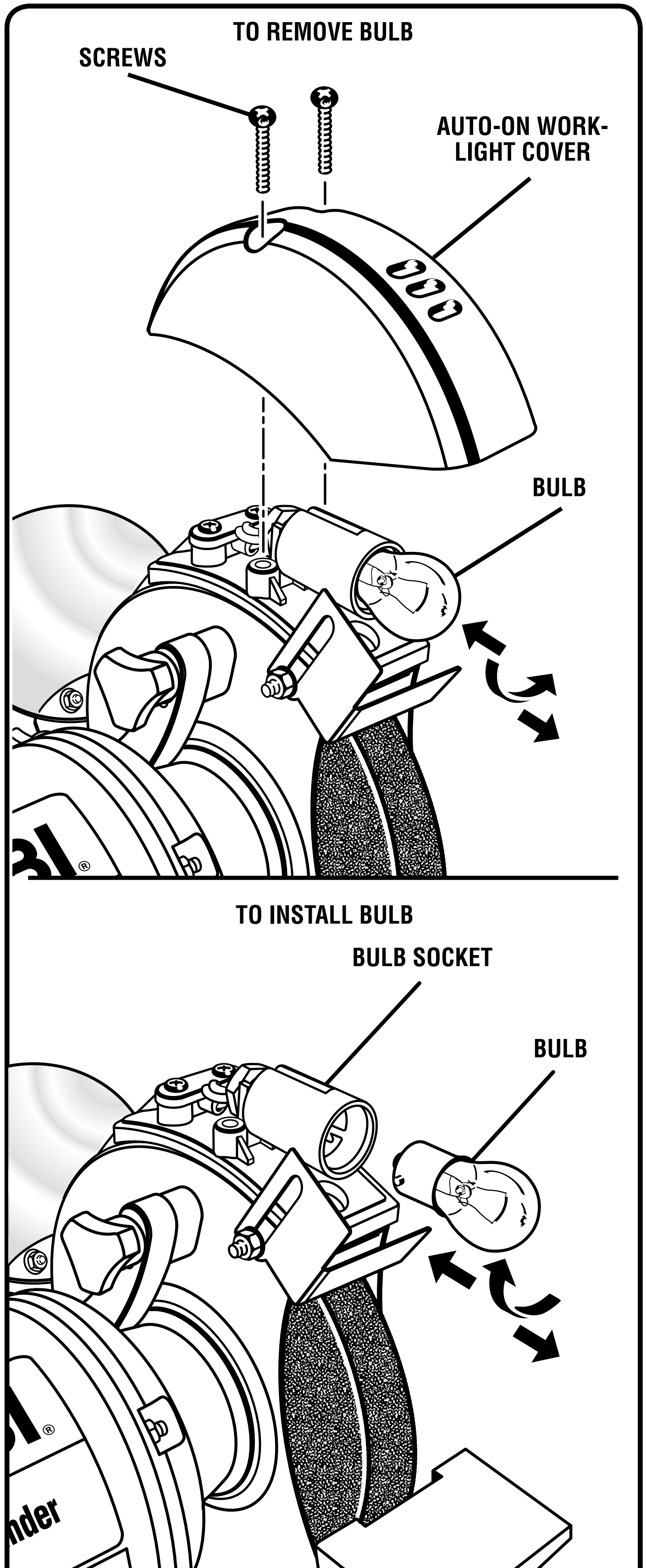


Fig. 13

NOTES

OPERATOR'S MANUAL

BENCH GRINDER

BGH616 and BGH827

• SERVICE

Now that you have purchased your tool, should a need ever exist for repair parts or service, simply contact your nearest Ryobi Authorized Service Center. Be sure to provide all pertinent facts when you call or visit. Please call 1-800-525-2579 for your nearest Ryobi Authorized Service Center. You can also check our web site at www.ryobitools.com for a complete list of Authorized Service Centers.

• MODEL NO. AND SERIAL NO.

The model number of this tool will be found on a plate attached to the motor housing. Please record the model number and serial number in the space provided below.

• HOW TO ORDER REPAIR PARTS

When ordering repair parts, always give the following information:

- MODEL NUMBER BGH616 and BGH827
- SERIAL NUMBER ________________

RYOBI TECHNOLOGIES, INC.

1428 Pearman Dairy Road, Anderson, SC 29625

Post Office Box 1207, Anderson, SC 29622-1207

Phone 1-800-525-2579

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